# American Tulip Tree (Magnoliaceae Liriodendron tulipifera) 1436 and 1446 Cambridge Street Landmark Designation Study Report

prepared by Sally Zimmerman Cambridge Historical Commission April 10, 2001; revised May 8, 2001

#### Table of Contents

I. Location and Economic Status	p. 2
II. Description	p. 5
III. History of the Property	p. 6
IV. Significance of the Property	p. 11
V. Relationship to Criteria	p. 13
VI. Recommendations	p. 14
VII. Standards and Criteria	p. 16
VIII. Proposed Order	p. 18

### **Executive Summary**

The Tulip Tree at 1436 and 1446 Cambridge Street is a mature and prominent example of the species *Magnoliaceae liriodendron tulipifera*, the American tulip or yellow poplar. One of the few large trees on Cambridge Street, the Tulip Tree appears to be approximately 90 years old and, based on the species' characteristics, it can be expected to achieve great age and size.

The Tulip Tree meets criterion (1) of Article III of the City Code: it is importantly associated with the broad aesthetic and social history of the city. Historically, the site was prominent in the 19<sup>th</sup> century for its landscape development. Two 19<sup>th</sup>-century owners of important landscapes are associated with the property, Charles Mason Hovey and Charles Harding. Hovey was one of the premier horticulturists of his day and a proprietor of a nationally-noted nursery that occupied both sides of Cambridge Street from the 1830s through 1880s. Harding, a Boston merchant, maintained an imposing estate and mansion on the site from 1856 to 1910. The Tulip Tree is a reminder of the horticultural significance of this location.

The effect of this designation will be that no activity can take place on the premises within an area comprising a circumference of 10' beyond the drip line of the Tulip Tree, and no action can be taken affecting the appearance of the Tulip Tree, that would in either case be visible from a public way, without review by the Cambridge Historical Commission and the issuance of a Certificate of Appropriateness, Hardship or Non-Applicability, as the case may be. Applications made to the Mid Cambridge NCD Commission for alterations, new construction, or demolition affecting the surrounding properties at 1436 and 1446 Cambridge Street or the public right-of-way on Cambridge Street shall not be considered complete until the Cambridge Historical Commission has first issued a Certificate of Appropriateness, Non-Applicability, or Hardship with regard to the potential impacts of the proposed alteration, new construction, or demolition on the Tulip Tree.

#### I. Location and Economic Status

#### A. Address and Zoning

The subject of this report, a mature American tulip tree (*Magnoliaceae Liriodendron tulipifera*), also known as a tulip or yellow poplar, is located at 1436 and 1446 Cambridge Streets. It stands at the northwest corner of the yard at 1436 Cambridge Street and its trunk has grown approximately 8" into the adjoining yard at 1446 Cambridge Street. The drip line of the Tulip Tree incorporates portions of the public way and sidewalk adjoining 1436 and 1446 Cambridge Street and those portions of the public way which fall within the drip line of the tree are also the subject of this report.

The properties (lots 113-86, 1436 Cambridge Street, and 113-38, 1446 Cambridge Street) are zoned C-1, allowing multi-family residential use. The development standards for the zone provide for front, rear and side setbacks as determined by a formula of height plus length. In the C-1 zone, the maximum building height allowed is 35', the minimum usable open space to lot area is 30%, and the maximum floor area ratio allowed is .75.

The property at 1436 Cambridge Street has been subdivided so that the building on the property occupies two lots, lot 113-86 and lot 113-85. Lot 113-86 contains 4398 square feet of area; the section of the building standing lot 86 contains an approximate FAR of .60. The property at 1446 Cambridge Street is somewhat less intensively developed, with an approximate FAR of .50 on a 4500-square foot lot; a one-story garage at the southeast corner increases the lot coverage but as an accessory structure does not affect floor area. The Tulip Tree adjoins the paved driveway that leads to the garage on the east side of 1446 Cambridge Street. Both properties appear to contain some additional allowable development potential, however, the buildings' placement on their lots appears to create non-conformities as to aspects of their respective setbacks. It is likely that any further development of either lot would require zoning relief.

The properties are located in the Mid Cambridge Neighborhood Conservation District, which regulates alterations, new construction and demolition of structures in the district. The Mid Cambridge Neighborhood Conservation District jurisdiction does not extend to landscape features or other features that do not require issuance of a building permit, except as those are part of a larger project that does require issuance of such a permit.

Were the Tulip Tree to be designated as a landmark, the portion of the two parcels that is outside the landmark-designated area, as well as the area of sidewalk and public way beyond the drip line of the tree, would remain in the Mid Cambridge Neighborhood Conservation District and all powers and authority of the district would remain in effect outside of the landmark designated portions of the two parcels at 1436 and 1446 Cambridge Street and their adjoining public right of way.

#### B. Ownership

The owner of 1436 Cambridge Street is Alan Feiner; the owner of 1446 Cambridge Street is Sarah J. Hart. The Feiner property is occupied as a single-family residence; the Hart property contains dental offices. The parcels are recorded in the South Middlesex

Registry of Deeds as follows: 1436 is recorded in book 15924, page 334 and 1446 is recorded in book 30642, page 595. The City of Cambridge owns the sidewalk easements and right of way on Cambridge Street adjacent to these two parcels.

# C. Area Description

The Tulip Tree is located in a heavily-developed section of Cambridge Street just west of the Inman Square retail district. Within one block of the tree are a mix of residential, commercial, office, and institutional uses, including multi-family residences (apartment blocks, frame tenements, and single and two-family houses with ground floor retail and office uses), Vellucci Park, the United Presbyterian Church of Cambridge, commercial storefronts, medical offices, and the Cambridge Hospital campus. The adjacent side streets (Fayette and Maple) are important conduits to and from Cambridge Street, while Cambridge Street is the major arterial connector between Harvard Square and East Cambridge.

Two blocks east of the tree is Inman Square, a busy retail area with restaurants, stores, banks and offices. South of the tree, the area is uniformly residential in character, with a densely-developed cluster of early 20<sup>th</sup>-century two- and three-family houses on Fayette Street, Fainwood Circle, and Maple Avenue. Farther south, the neighborhood contains a mix of older, mid-19<sup>th</sup>-century houses (including the Maple Avenue National Register District) and early 20<sup>th</sup>-century infill residences.

# D. Planning Issues

Impetus for the initiation of the Tulip Tree landmark designation study came from efforts by the owner of 1446 Cambridge Street to increase access to her driveway and garage, which was partially impeded by the Tulip Tree's trunk. In consultation with the previous owner of 1436 Cambridge Street, Dr. Hart agreed to remove the tree and replace it with a 15-foot tulip tree rather than pursue her initial plan to cut back the trunk of the existing tree to widen the driveway area. Removal of the tree was prevented when a group of citizens intervened to protect the tree; these included Rachel Faith, who chained herself to the tree on May 26, 2000 in advance of the tree removal contractor. Removal of the tree on that date was forestalled pending issuance of a permit to obstruct the sidewalk. Removal of the tree was thwarted again a week later after the revocation of the sidewalk permit to allow consideration of pending City Council orders on landmarking the tree.

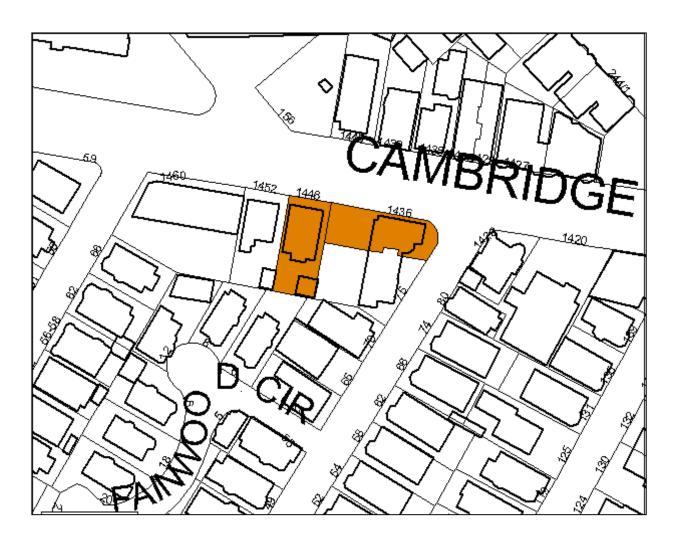
A unanimous City Council vote taken on June 19, 2000 directed the Historical Commission to consider studying the Tulip Tree as a possible city landmark. On June 21, the Election Commission verified a petition from at least ten registered voters requesting the Historical Commission to initiate designation procedures for the tree and on June 29, the Commission voted to do so. A public hearing on August 3 confirmed the earlier Commission vote.

As a large, well-formed, mature urban tree, the Tulip Tree is one of a category of "structures" that is attracting increasing public policy concern in Cambridge. The Tulip Tree joins the Houghton Beech Tree (1000 Massachusetts Avenue, landmarked 1986), a

Japanese maple tree at 33 Linnaean Street, and the London plane trees ("sycamores") on Memorial Drive as a focus of public concern and debate on the subject of tree protection and preservation.

In Cambridge, the Department of Public Works and, within the department, the Parks and Urban Forestry Division, oversees a comprehensive tree care program, which includes tree protection, for public trees. The City Arborist, acting as Cambridge's tree warden, meets monthly with the Committee on Public Planting. The Committee and its Tree Protection Task Force are actively engaged in discussions to develop a tree protection ordinance that would augment the existing statutes protecting trees. According to MGL Ch. 87, a public hearing and review is required prior to the removal of a public or street tree, but trees on private property are not similarly protected. While other avenues for tree protection are being explored, advocates for the preservation of significant trees on private property have turned to the city's landmark enabling ordinance, Article III of Ch. 2.78, as a possible or interim method of protecting significant trees.

#### E. Map



# II. Description

The subject of this study is an American Tulip Tree also known as a tulip or yellow poplar. A member of the Magnoliaceae family of trees (*Magnoliaceae Liriodendron tulipifera*), the tulip tree is a fast-growing, ornamental shade tree with bright green leaves and a showy yellow-green flower that appears high in the tree from April to June and resembles a tulip in form. The tree has a very straight trunk, light gray-green bark, and a pyramidal crown. It achieves a mature height of 70'-90' and spreads to a circumference of 40'. The wood, which is light yellow in color and easily worked, is used in naval construction and cabinetmaking. The tulip tree requires full sun and a deep, moist, slightly acid soil. It thrives in areas with long, wet summers and is sensitive to disturbance, suffocation and salt.

The tulip tree is native to the eastern United States and is common from the Great Lakes south to Florida; it is the state tree of Indiana, Kentucky, and Tennessee. Capable of achieving great height, the tulip tree is among the tallest trees in the East, with an example in the Great Smoky Mountains National Park standing 175.5'. A recent article in the *New York Times* (Nov. 10, 2000, "A Rendezvous With 2 Giant Trees") identified two specimens, one in Queens and one on Staten Island, with heights of 133.8' and 146', respectively.

The subject Tulip Tree is approximately 65' tall and stands in an open location where it is prominently visible along Cambridge Street. Its age has been estimated to be at least 60 years. It has a single, large trunk rising some 20 feet before branching in a narrow, almost fastigiate crown. The crown not evenly shaped, but contains some gaps where branches may have been lost at some points in the tree's life. It does not appear to have been pruned significantly or deliberately shaped through pruning. There is a large secondary branch on the east side of the tree at about 25 feet, and several somewhat smaller branches intervening. The bark is tightly and deeply furrowed.

At the time of the petition, there did not seem to be any large or generalized areas of weakness or decay in the tree. The tree should be observed over the spring of 2001 to determine its state of health. An incident in the fall of 2000 was alleged to have involved some efforts to undermine the tree, either through the application of harmful chemicals or through "spiking" the trunk with copper nails. Whether any harmful actions were taken has not been determined.

### III. History of the Property

### A. Historic Development Patterns

### 1. Deed History of Properties

The parcels of land on which the Tulip Tree stands were undeveloped before the 1850s. The land was held in two major portions. The eastern portion was held by a number of owners in the early 19<sup>th</sup>-century before being consolidated for speculative development by one owner, Isaac Fay, in the 1840s. William Winthrop owned the western portion, which was part of a large parcel that included both sides of Cambridge Street between Line and Ellery streets. Winthrop's land was sold after 1818, much of it ultimately being purchased by Phineas Hovey in 1841.

Hovey, his brother, Charles M. and their cousin, Isaac Livermore, sold a portion of their land (including the western of the two Tulip Tree parcels) to Joseph Doe in 1853 (Middlesex South Registry of Deeds, book 650, page 61). Doe held the property only for three years, when it was sold to Benjamin Lombard (Middlesex South Registry of Deeds, book 760, page 33). The eastern of the Tulip Tree parcels remained in Isaac Fay's ownership until 1857, when Lombard purchased several of Fay's lots, and consolidated the portions into one parcel (Middlesex South Registry of Deeds, book 770, page 69) occupying the entire block of Cambridge Street between Fayette and Maple streets.

In 1862, the land, on which a large house had been erected in 1855, was sold to Julia and Charles Harding (South Middlesex Registry of Deeds, book 880, page 290). The parcel remained intact until 1904, when the Harding estate was subdivided into numerous small lots, and sold for speculative development. Fainwood Circle, a cul-de-sac of three-deckers, and a series of two-family and three-decker houses on Maple and Fayette streets were developed out of the estate. The Cambridge Street frontage was broken into six lots. The corner lot at 1436 Cambridge Street was developed in 1907; the interior lot at 1446 Cambridge Street was developed in 1924.

#### 2. Development History of Parcels

The history of the Tulip Tree is tied to the historical development of the two properties on which it stands. The tree is located on properties that were extensively redeveloped in the early 20<sup>th</sup> century. As the exact age of the tree is not known, it is not possible to determine a precise time for its planting. The tree is at least 62 years old given that it appears in a 1938 photo of Cambridge Street; at the time of the photo, the tree appeared to be approximately 25' in height, meaning it might have been 15-20 years old. The tree could, then, have been planted, or taken root as a volunteer, sometime around 1915. Without further physical data, it is not possible to determine the tree's age, however, the context within the tree may have established itself can be reconstructed from the history of its surroundings.

The building at 1436 Cambridge Street dates from 1907. Constructed as a four-family dwelling, the building has an unusual form that combines a front section that is scaled to appear to be a single-family residence with a large, three-story rear wing that contains multiple dwelling units. The house is sited on the east side of the lot, leaving the west side yard, where the tree is located, comparatively open.

Building permit records (building permit #11938, 5/7/1907) show that the building was constructed for Felix F. McGirr, designed by Edward B. McGirr, architect, and built by John McGirr & Son, builders. Felix McGirr, a physician, maintained an office at 1436 Cambridge Street. The McGirr family, as architect and/or builder, were responsible for the construction of at least a dozen residences, many in the surrounding Mid Cambridge neighborhood, at the turn of the 20<sup>th</sup>-century. The property remained in the McGirr family into the 1960s.

The brick-veneer building at 1446 Cambridge Street was constructed as a two-family dwelling for Dr. Jeremiah and Mrs. Julia T. Boyle in 1924 and built by Patterson & Fox, Cambridge builders active from the 1890s through the 1920s. Dr. Boyle maintained his medical practice in the house through the 1950s. The house is set close to Cambridge Street with a paved driveway on the east side and a 4-car concrete block garage structure on the rear property line.

Prior to construction of the McGirr and Boyle houses, the properties at 1436 and 1446 Cambridge Street were part of the Harding estate, a 138,000-square foot property that encompassed the entire block of Cambridge Street between Fayette Street and Maple Avenue, extending 480' south on Fayette and 550' south on Maple. The Harding estate, owned from 1862 into the early 20<sup>th</sup> century by Julia A. and Charles L. Harding (or their heirs), had been part of a much larger parcel owned, at least in part, for speculative development by Isaac Livermore, and two brothers, Phineas B. and Charles M. Hovey.

From 1841 to the mid 1880s, the Hovey brothers operated one of the most prominent commercial nurseries of the 19<sup>th</sup> century on a 40-acre property that encompassed all of the area north of Cambridge Street and east of Roberts Road to the city line and a somewhat smaller area between Ellsworth and Fayette streets as far south as Broadway. The nursery grounds were cleared for the growth of specimen and ornamental trees and shrubs, fruit trees and plants, and flowers. The Hovey nursery greenhouses were located on the portion of the property south of Cambridge Street between Maple and Ellsworth avenues and sheltered prize camellias, roses, geraniums and lilies. Charles Mason Hovey, the more prominent of the brothers, was widely known in the 19<sup>th</sup> century as one of the country's foremost hybridizers of commercial plants. Among the plants that Hovey successfully hybridized were varieties of arborvitae, strawberries, cherries, pears, camellias, azaleas, lilies, geraniums, and orchid cactus.

The Harding estate stood just east of the Hovey greenhouses and on a portion of the nursery land that was sold by Livermore and the Hovey brothers to Joseph M. Doe in 1853 (Middlesex South Registry of Deeds, June 1, 1853, book 650, pages 61-65). As part of the sale, the sellers agreed to remove nursery buildings and trees on the lot "before

1 December 1853 or whenever Doe desires to plant trees for shade and ornament." The Doe property was soon thereafter enlarged by purchases from the adjacent land owner to the east, Isaac Fay (who laid out Fayette Street in 1842).

The property, on which Doe built a large brick house in 1855, was sold in 1856 to Benjamin Lombard of Cambridge. Lombard's occupation is not listed in city directories, but Lombard's son, Benjamin, Jr., was listed as a "western land broker". When Charles L. and Julia Harding purchased the property in 1862, Lombard, Sr., was listed as "now of Chicago", so it may be that the Lombards were engaged in western land dealing (see Middlesex South Registry of Deeds, July 1, 1862, book 880, page 290.) Charles L. Harding was a commission merchant in Boston, with offices at 202 Devonshire Street.

The house, which was demolished in 1910 (building permit #1339, 6/1/1910), was one of Cambridge's most substantial residences. It was fully described in an advertisement placed by Doe in the *Boston Evening Transcript*, June 25, 1856:

The lot . . . is surrounded by large and beautiful shade trees. On the grounds are some 400 fruit trees, including more than 30 varieties of pear . . . The House is of brick. . . 51 feet square . . . It has the Chatteau (sic) or curved roof, making the rooms on the third floor nearly as desirable as any in the House. It contains 21 rooms, most of them large, besides large bath rooms and large cedar and other closets in abundance . . . Most of the doors in the two principal stories are of solid black walnut, finely polished, trimmings silver plated, with many of the hinges the same . . . the heating arrangements are very perfect . . . also water pipes laid to the street, to receive the Fresh Pond water which is soon to be introduced. The stable is 40 feet by 34 . . . the buildings have been erected for the present owner, under the direct superintendence of those well known architects, Messrs. Hovey and Ryder, and are believed by the best judges to be, in elegance of style, neatness of finish and thoroughness of workmanship, superior to any that are in the vicinity of Boston . . .

(The firm responsible for the design of the house, Hovey & Ryder, were William B. Hovey, Jr. and Calvin Ryder. William Hovey, Jr. [1812-1881], a cousin of Charles M. and Phineas B. Hovey, was identified both as a builder and an architect. The earliest references to his buildings are from the late 1830s; Hovey & Ryder's buildings in Cambridge date from the early 1850s.)

An 1896 photo and various atlas views of the property under Harding ownership (see figures) indicate the estate had an elaborate, Victorian landscape plan, with a circular entrance drive, a central fountain, and formal terraces and parterres at the front of the house. There were meandering paths, a brick stable and a greenhouse at the back.

With a property history of specialized cultivation dating from the 1840s, it is possible to speculate that tulip trees may have been among the specimen shade trees present on the site during the 19<sup>th</sup> century and to speculate further that the present tree may be a scion of such a tree. The construction of the McGirr house in 1907 would not have disturbed the Tulip Tree, if it existed at that time. If, as based on the photographic evidence, the Tulip

Tree dates around 1915, the 14-year period between the demolition of the Harding house in 1910 and the construction of the Boyle house in 1924 would have given the tree ample time to become established on its site. In either case, it seems likely that the tree took root at some time between 1900 and 1920.

# B. Historic Photographs

C. Bibliography

### **Government Sources**

Cambridge Historical Commission, architectural files on Hovey & Ryder, John McGirr, Patterson & Fox

Cambridge Historical Commission, biographical files on the Hovey Family, Isaac Livermore

Cambridge Historical Commission, commerce and industry source files, Hovey & Co.

Cambridge Historical Commission, survey files for Cambridge Street views, 1436, 1446, and 1460 Cambridge Street

Cambridge Historical Commission, "Landmark Designation Report: Houghton Beech Tree, 1000 Massachusetts Avenue," August 15, 1985

Middlesex South Registry of Deeds, land records for 1436 and 1446 Cambridge Streets

#### Newspaper Articles

Cambridge Chronicle, "What a difference a few inches make," June 14, 2000

"Cambridge street tree granted a stay," June 21, 2000

"Controversial tree mysteriously damaged", November 1, 2000

New York Times, "A Rendezvous With 2 Giant Trees," November 10, 2000

#### On-line Sources

"City Tree Ordinances" at www.ag.iastate.edu/departments/forestry/ext/treeord

"Eastern Native Tree Society" at www.uark.eu/misc/ents

"Famous and Historic Trees" at www.historictrees.org

"Guidelines for Developing and Evaluating Tree Ordinances" at www2.champaign.isaarbor.com/tre-ord

"Landscape Trees for North Carolina-Liriodendron tulipifera," at

# www.ces.ncsu.edu/depts/hort/consumer

"Liriodendron tulipifera" at http://gardenbed.com

"Ohio's Trees: Liriodendron tulipifera", at <a href="www.hcs.ohio-state.edu/ODNR/Education">www.hcs.ohio-state.edu/ODNR/Education</a>

"Tulip Tree" at http://encarta.msn.com

"Tulip-Tree" at www.domtar.com

"Tuliptree – Liriodendron tulipifera" at www.arborday.org

"Yellow Poplar" at www.fw.vt.edu/dendro/dendrology

### **Other Sources**

Gilman, Arthur, <u>The Cambridge of Eighteen Hundred and Ninety-Six</u>, Cambridge. Riverside Press, 1896

Hutchinson, B. June, "A Taste for Horticulture," Arnoldia, Vol. 40, No. 1, Jan./Feb. 1980

### Personal Communication

Barnett, Dave, Chief Arborist, Mount Auburn Cemetery

"Cambridge Trees," electronic mail from Karen Carmean, re: Cambridge Tree Project at carmean@mediaone.net, various dates

### IV. Significance of the Property

### A. Historical Significance

The Tulip Tree is historically significant as a large, well-established specimen tree occupying a prominent visual location on Cambridge Street. It is also significant for its topographical relationship to two historically-important landscapes in Cambridge's history, the Hovey nursery and the Harding estate.

As horticultural specimens, tulip trees are noted for their size and longevity. In the eastern United States, tulip trees are among the few trees capable of achieving great size and a life span of centuries. Of the 16 tallest known trees documented in the eastern states by the Eastern Native Tree Society, there are 10 white pines, 4 tulip poplars, a loblolly pine, and a black walnut (see http://www.uark.edu/misc/ents/statetrees.html).

As white pines do not grown in urban areas, it may be likely, according to a recent *New York Times* article (11/10/2000), that in an urban context, tulip trees may be the "tallest and most voluminous trees in the East." The article states tulip trees are "fairly tough, able to survive in city parks despite air pollution and vandalism." One of two New York City tulip trees cited in the *Times* article was estimated to be 350-400 years old and the species can live as long as 600 years.

While the tulip tree at 1436 and 1446 Cambridge Street has not yet achieved its full potential, with adequate protection and care, it can be reasonably assured of substantial achievement. The species' capacity for survival in urban contexts increases the importance of the Tulip Tree as a candidate for preservation since it is likely to be capable of significant additional growth.

It is not known how many other comparable examples of mature tulip trees are located in Cambridge, but other notable tulip trees exist at the Cambridge Cemetery, at Mount Auburn Cemetery, and elsewhere on other private properties. The Mount Auburn Cemetery tulip tree, at Consecration Dell, is believed to predate the establishment of the cemetery in 1831; that tree would likely be among the oldest tulip tree specimens in Cambridge. For its location, the Cambridge Street Tulip Tree is exceptional. There are few trees of similar size and stature on Cambridge Street.

In the historical development context, the significance of the Tulip Tree is less easily established, given that a precise date for its introduction into the landscape has not been determined. A possible scenario for the establishment of the Tulip Tree may relate, chronologically, to the demolition of the Harding house in 1910. The removal of the Harding house and the subsequent 14-year period when the site remained undisturbed would have provided an important window of growth for the Tulip Tree. If the tree grew as a "volunteer", this period of calm would have allowed the tree to become established. Its location in the side yard of the McGirr house also ensured that the Tulip Tree was not disturbed in the crucial early years of its growth.

Alternatively, the tree may have been planted, or allowed to grow, as a specimen by the McGirr family following construction of the McGirr house in 1907. Tulip tree propagation appears to require some effort as the seed is poorly germinated (only about 1% of seeds are viable). The potential of the tree to self-seed from a pre-existing specimen tree on or near the site may, therefore, be remote. In either case, as a volunteer or a deliberately planted specimen, the Tulip Tree is present in the 1938 photo at a size which would be consistent with its planting between 1907 and 1910, some 28-31 years earlier. Historically, then, the Tulip Tree could have been planted in the period between 1907, when the McGirr house was constructed at 1436 Cambridge Street, and 1910, when the Harding house was removed from the site at 1446-1460 Cambridge Street.

Less direct, circumstantial historical evidence suggests that the Tulip Tree could be related, perhaps as a scion of an older tree, to the cultivation of its site by either of two previous 19<sup>th</sup>-century owners. Both the Hovey nursery (1834-1868) and the Harding estate (1856-1910) were properties of considerable distinction, from a horticultural perspective, and either could have provided the specimen material, in the form of a cultivated tulip tree, for the introduction of the Tulip Tree. In the case of the Hovey nursery, it is a reasonable general speculation that *any* unusual tree or plant specimen that exists on land once owned by the nursery, and especially any tree or plant of great age, is related to the nursery and therefore, significant in the city's cultural topography.

# V. Relationship to Criteria

#### A. Criteria for Designation

Section 2.78.180 of Article III of the City Code establishes the criteria for designating landmarks. It states:

The Historical Commission by majority vote may recommend for designation as a landmark any property within the City being or containing a place, structure, feature or object which it determines to be either (1) importantly associated with one or more historic persons or events, or with the broad architectural, aesthetic, cultural, political, economic or social history of the City or the Commonwealth or (2) historically or architecturally significant (in terms of period, style, method of construction or association with a famous architect or builder) either by itself or in the context of a group of structures . . .

# B. Relationship of Property to Criteria

The Tulip Tree is a feature which is importantly associated with the broad aesthetic and social history of the City. It is a well-established and prominent specimen tree of the species *Magnoliaceae Liriodendron tulipifera*, the American tulip or yellow poplar. Tulip trees are capable of living to great age and are hardy in an urban environment; the species is among the longest-lived, largest trees in the eastern United States. The Tulip Tree at 1436 and 1446 Cambridge Street contributes significantly to the aesthetic character of its site and, as a mature and potentially venerable specimen, to the aesthetic character of the city. It is one of the few large trees on Cambridge Street, one of the city's most important traffic arteries.

Historically, the Tulip Tree is associated with the development of its site, which is prominent for two prior owners, Charles Harding and Charles Mason Hovey. Harding, a Boston commission merchant at Harding, Colby & Company, maintained an imposing house and landscaped grounds on the property between Maple Avenue and Fayette Street from 1856 to 1910. The Hovey nursery, run by Charles M. and Phineas B. Hovey, was one of the 19<sup>th</sup>-century's pre-eminent commercial nurseries and Charles Hovey one of its premier horticulturists. The Tulip Tree is a reminder of the horticultural importance of this site. On the basis, then, of its important associations with the broad aesthetic and social history of the city, the Tulip Tree appears to meet criterion (1) of Article III.

#### VI. Recommendations

### A. Purpose of Landmark Designation

Section 2.78.140 of Article III identifies the following purposes for landmark designation:

The City Council finds it necessary to enact this article under Section 6 of the Home Rule Amendment in order to preserve, conserve and protect the beauty and heritage of the City and to improve the quality of its environment through identification, conservation and maintenance of neighborhoods, areas, sites and structures which constitute or reflect distinctive features of the architectural, cultural, political, economic or social history of the City; to resist and restrain environmental influences adverse to this purpose; to foster appropriate use and wider public knowledge and appreciation of such neighborhoods, areas or structures; and by furthering these purposes to promote the public welfare by making the City a more attractive and desirable place in which to live and work. To achieve these purposes, the City may designate . . . landmarks to be administered as set forth in this article. (Ord. 1002 (part), 1983: prior code § 2-147(k) (1))

## B. Preservation Options

The options for preserving the Tulip Tree are few. The Tulip Tree is located in the Mid Cambridge Neighborhood Conservation District, but the terms of the district order do not require Commission review prior to the removal of a tree. Historic district designation under Ch. 40C is not an option in a pre-existing neighborhood conservation district and in any case would not allow independent review of tree removal. State tree protection statutes pertain only to publicly-owned trees.

Donation of a conservation easement to the Cambridge Conservation Commission by the two owners could be investigated. Other than a conservation easement, the only other protective mechanism for the tree appears to be landmark designation. The City of Cambridge has one other landmark tree, the Houghton Beech Tree, designated in 1985. Landmark designation for the Tulip Tree would require Historical Commission approval of any actions to be undertaken to remove, encroach upon, or prune the Tulip Tree, or to undertake any form of construction, alteration or demolition within a 10' perimeter surrounding the drip line of the tree.

A possible alternative in the future might be protection through adoption of a comprehensive tree protection ordinance by the City Council. While such an ordinance is under study, the uncertain time line of developing and establishing a tree protection

ordinance indicates that preserving the Tulip Tree by that means is unlikely to occur before the interim study protections of landmark study expire in May, 2002.

#### C. Staff Recommendation

It is the staff recommendation that the Historical Commission find the Tulip Tree at 1436 and 1446 Cambridge Street eligible for landmark designation under criterion (1) of Article III for the reasons contained in this report and that the Commission forward the report to the City Council with a favorable recommendation for designation as a Cambridge Landmark.

It is the further staff recommendation that the possibility of donating a conservation easement for the protection of the tree be pursued by the Historical and Conservation Commission staffs with the owners of the affected properties.

In the event a comprehensive tree protection ordinance that would permanently protect historically significant trees is established, it is the further staff recommendation that the Historical Commission should, at that time, consider initiating a landmark study of any designated trees then under the Commission's jurisdiction to determine the appropriateness of transferring review authority over those trees to the body specifically established for that purpose.

#### VII. Standards and Criteria

#### A. Introduction

Under Article III, the Historical Commission is charged with reviewing any construction, demolition or alteration that affects the exterior architectural features (other than color) of a landmark. In the case of the Tulip Tree, the structure of the tree itself and its immediate surroundings constitute the physical features under consideration.

The Tulip Tree structure and the immediate surroundings of the tree to a diameter of 10' beyond the drip line of the tree are considered the protected component of the landmark designation. The portion of the properties at 1436 and 1446 Cambridge Street, as well as the publicly-owned property, that falls outside that drip line is located in the Mid Cambridge Neighborhood Conservation District and remains subject to all the powers and authorities contained in the City Council order establishing that district.

This report describes aspects of the tree that are among the characteristics that led to its consideration as a landmark. Except as the order designating or amending the landmark may otherwise provide, the features described in this report should be preserved and/or enhanced in any proposed alteration or construction that affects those features of the landmark. The standards following in paragraph B of this section provides specific guidelines for the treatment of the landmark described in this report.

## B. General and Specific Standards and Criteria

The following General and Specific Standards and Criteria shall apply for the purposes of the Tulip Tree:

- 1. Except for the purpose of preserving the tree and as undertaken in conformance with Article III, 2.78.190-220, no action shall be taken to prune, remove, cut above or below ground, or otherwise disturb the premises of the Tulip Tree to a diameter of 10' extending beyond the drip line of the tree.
- 2. Except as undertaken in conformance with Article III, 2.78.190-220, the soil and the drainage pattern of the soil in the designated area around the Tulip Tree shall not be filled, surfaced, graded, compacted or changed in any manner that threatens to diminish the vigor of the Tulip Tree.
- 3. No person shall intentionally damage, cut, carve, attach any rope, wire, nails, or other contrivance to the Tulip Tree; allow any gaseous, liquid, chemical, or solid substance that is harmful to the Tulip Tree to come in contact with the tree; or set fire or permit fire to burn when such fire or the heat will injure any portion of the Tulip Tree.
- 4. Normal seasonal trimming, shaping, thinning or pruning of the Tulip Tree necessary to its health and growth may be undertaken only in conformance with Article III, 2.78.190-220.
- 5. Where sidewalk or curb damage due to tree roots occurs, every effort shall be made to correct the problem without damaging the Tulip Tree. No excavation of any ditches,

tunnels, or trenches or paving of any surfaces shall be undertaken except in conformance with Article III, 2.78.190-220.

- 6. The Tulip Tree shall not be "topped" or severely trimmed or otherwise pruned in a manner that substantially reduces the overall size of the tree area so as to destroy the symmetrical appearance or natural shape of the tree or leaves the trunk of the tree in a stub appearance.
- 7. The Commission shall consult with the City Arborist in making determinations with regard to the Tulip Tree.
- 8. Applications for Certificates of Appropriateness, Non-Applicability, or Hardship made to the Mid Cambridge Neighborhood Conservation District Commission for alterations, new construction, or demolition affecting the surrounding properties at 1436 and 1446 Cambridge Street (parcels 38 and 86 of assessor's map 113) or the public right-of-way on Cambridge Street shall not be considered complete until the Cambridge Historical Commission has first issued a Certificate of Appropriateness, Non-Applicability, or Hardship with regard to the potential impacts of the proposed alteration, new construction, or demolition on the Tulip Tree.

### VIII. Proposed Order

#### ORDERED:

That the Tulip Tree, 1436 and 1446 Cambridge Street, be designated as a protected landmark pursuant to Chapter 2.78, Article III, Section 2.78.180 of the Code of the City of Cambridge, as recommended by vote of the Cambridge Historical Commission on May 3, 2001. The premises so designated are defined as parcels 38 and 86 of assessor's map 113 and recorded in book 30642, page 595 and book 15924, page 334 of the South Middlesex Registry of Deeds and as that portion of the public right-of-way, including any and all easements attached thereto, of Cambridge Street which lies within 10' of the drip line of the Tulip Tree.

This designation is justified by the Tulip Tree's important associations with the broad aesthetic and social history of the City. It is a well-established and prominent specimen tree of the species *Magnoliaceae Liriodendron tulipifera*, the American tulip, or yellow, poplar. The Tulip Tree contributes significantly to the aesthetic character of its site and, as a mature and potentially venerable specimen, to the aesthetic character of the city. It is one of very few large trees on Cambridge Street, one of the city's most important traffic arteries.

Historically, the Tulip Tree is associated with the development of its site, which is prominent for two prior owners, Charles Harding and Charles Mason Hovey. Harding, a Boston commission merchant, maintained an imposing house and landscaped grounds on the property between Maple Avenue and Fayette Street from 1856 to 1910. The Hovey nursery, run by Charles and Phineas Hovey, was one of the 19<sup>th</sup>-century's pre-eminent commercial nurseries and Charles Hovey one of its premier horticulturists. The Tulip Tree is a reminder of the horticultural importance of this site.

The effect of this designation shall be that no activity can take place on the premises within an area comprising a circumference of 10' beyond the drip line of the Tulip Tree, and no action can be taken affecting the appearance of the Tulip Tree, that would in either case be visible from a public way, without review by the Cambridge Historical Commission and the issuance of a Certificate of Appropriateness, Hardship or Non-Applicability, as the case may be. In making determinations, the Commission shall be guided by the terms of the landmark designation report, and by Section VII, Standards and Criteria, of the landmark designation report, and by the applicable sections of Article 2.78.